Panelists' Recommendations

Panelist 1: Cassidy Nelson

I recommend that States Parties not only adopt Annex III to establish the Science and Technology Advisory Mechanism, but explicitly mandate that its first 'Broad Theme' for review—as per Appendix I, Paragraph 2—be the convergence of Artificial Intelligence and the Life Sciences.

Why? Because AI model updates happen in weeks, while our diplomatic cycles take years. We cannot afford to establish this mechanism and then wait another year to decide what it should look at. Areas the Advisory Mechanism could potentially help address:

1. The "Digital" Verification Exercise (Annex I, Section D)

- Paragraph 26 of Section D encourages States Parties to organize "trial/practice application of compliance and verification measures". However, historically, these have been physical exercises (e.g., mock on-site inspections).
- Recommendation: Regarding Paragraph 26 of Section D on 'trial/practice application', I recommend that the Working Group explicitly encourages a digital verification exercise. States Parties should trial the use of AI-driven open-source intelligence (OSINT) and trade data analysis to detect simulated non-compliance. This would test the utility of AI as a verification tool without the logistical burden of a physical inspection, directly supporting the mandate of the new Open-Ended Working Group.

2. "Compute" as Article X Assistance (Annex II)

- Annex II (ICA Mechanism) focuses on the exchange of "equipment, materials and scientific... information". In 2025, "equipment" is increasingly interpreted as physical hardware (pipettes, sequencers). The "Hardware Gap" (lack of GPUs) is a major barrier to equity.
- Recommendation: In operationalising Annex II, specifically under Appendix I, Paragraph 3(c) regarding the exchange of 'equipment', we should explicitly clarify that 'cloud computing resources' and 'secure API access credits' constitute a form of material assistance. Providing access to secure, high-performance compute is the most effective way to democratise modern biology without the proliferation risks of shipping physical hardware or open-sourcing sensitive model weights.

3. Expanding "Codes of Conduct" to the Tech Sector (Annex I, Section B)

- Paragraphs 8 & 9 promote a "culture of responsibility" and welcome the *Tianjin Biosecurity Guidelines*. These guidelines are excellent but heavily oriented towards wet-lab scientists. A major source of risk is now computer scientists and AI engineers who lack biosecurity training.

- Recommendation: Regarding Paragraph 8 on 'developing or updating voluntary codes of conduct', I recommend adding specific language to include 'professionals in artificial intelligence and computational biology'.

The BWC needs to signal that biosecurity norms must extend beyond the laboratory to the server room. We should encourage States Parties to engage their domestic AI sectors to adopt codes of conduct analogous to the Tianjin Guidelines, specifically for the training and release of biological foundation models.

Panelist 2: Geoffrey Otim

My recommendation is for States Parties to consider establishing a BWC-aligned 'AI-Biodesign Safety Framework'. This would harmonize safety filters, risk-tiered access models, red-zone definitions, developer responsibility guidelines, and audit expectations for AI-biodesign systems. Importantly, it should embed equity and capacity-building to ensure that Global South regions can access safeguarded, beneficial AI tools while collectively reducing the global risk of misuse.

Panelist 3: Sana Zakaria

States Parties are encouraged to ensure that the Science and Technology Advisory Mechanism's monitoring, assessment and reporting of emerging and converging technologies relevant to the Convention, including developments in AI-enabled biodesign tools, are made available in a timely and transparent manner to inform voluntary cooperation and assistance under Article X. Such information may assist States Parties, upon their request, in identifying and addressing potential security-related gaps or vulnerabilities within their national implementation systems at an early stage, thereby helping to proactively mitigate possible biological security loopholes and strengthen the effective implementation of the Convention.